

# Update on Advisory Circulars and Engineering Briefs-- Design and Construction Related

Partnership Conference  
FAA Airports Division  
March 28-30, 2006  
Dallas/Fort Worth Airport, Texas

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Federal Aviation  
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# Presentation Objectives

- Provide information on the Advisory Circular (AC) and Engineering Brief (EB) processes.
- Summarize the work in the Airport Engineering Division.
- Guidance available on the Airports internet web site.



# Airport Engineering Division AAS-100

- Division Manager
- Administrative Assistant
- Six Civil Engineers
- Three Electrical Engineers
- Technical Editor (works out of ANE)
- One Loan—Structural Engineer from ATO
- Possible New Hire - Research Engineer for ACRP effort (TRB related)



# FAA Guidance

- FAA guidance is part of the authorizing legislation for airport development using Federal funds.
- FAA airport design, construction, and maintenance guidance are contained in Advisory Circulars, the 150's series.
- Interim FAA airports engineering guidance is provided in Engineering Briefs.
- FAA airport guidance is available from FAA web sites : <http://www.faa.gov/arp/> (a temporary Redirect Site--about a year)



# Establishing or Changing Guidance

- HQ Office Initiates and Prepares Draft.
- Review by HQ Airports Offices.
- Revised Draft Sent for Concurrent Review to FAA Regions and Industry.
  - The Boeing Company and the Airports Consultants Council Receive Copies of Draft Changes.
- Comments Accepted for 60 days (General).
- Change Finalized.
- FAA Legal Review, Office Director Signs.



# What Delays a Change

- Non-Concurrence from HQ Offices.
- Non-Concurrence from FAA Regions.
- Inability to Reconcile Comments from Boeing, Airports Consultants Council, Peer Review Associations, or Industry.
- Substantive Alterations to a Proposed Change May Require New Draft.



# Recent Work (2005 and 2006)

- Large Portion of the Work Performed by Support Contract (principally by SAIC, and Integic)
- FAA specialist prepares statement of work, contractor delivers draft.
- FAA specialist circulates for review.
- FAA and contractor finalize document.
- FAA legal review, Office Director signs.



# Airports Redirect Web Site





# New (also current) Airports Web Site

## <http://www.faa.gov>

The screenshot shows the FAA website interface. At the top, the address bar displays <http://www.faa.gov/>. The header includes the FAA logo and navigation links: [FAA Home](#), [About FAA](#), [Jobs](#), [News](#), [Library](#), [Pilots](#), [Passengers](#), [Mechanics](#), and [More](#). Below the header, there are tabs for [Information & Search](#), [Licenses & Certificates](#), [Regulations & Policies](#), and [Safety](#). A search bar with the text "Powered by Google" and a "Quick Find:" label is present, along with a "Go" button. A callout box with a blue background and white text states: "When this checkbox is available, you will be notified of changes to the page." An arrow points from this box to a checkbox in the "Top Requests" section. The "Top Requests" section is titled "Top Requests" and contains a sub-section "faa.gov Tools" with three items: "Print this page" (with a printer icon), "Email this page" (with an envelope icon), and "Subscribe to this page" (with a checkmark icon). Below these tools, there are links for "Graphic TFRs", "Medical Certification", and "NOTAMs". The main content area on the left shows a "News" section with two items: "FAA Aerospace Forecasts 2006-2017" dated Mar. 2, and "New DC ADIZ/FRZ Notice to Airmen" dated Feb. 23. Each news item includes a brief summary and a link to the full document.

Address <http://www.faa.gov/>

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**News**

**FAA Aerospace Forecasts 2006-2017**  
Mar. 2 – The 2006 forecast for commercial aviation anticipates small gains, but in the longer run, the industry is expected to grow significantly.  
• [Forecast 2006-2017](#)  
• [Fact Sheet](#)

**New DC ADIZ/FRZ Notice to Airmen**  
Feb. 23 – FAA has published a new plain language Notice to Airmen (NOTAM) for the DC ADIZ/FRZ to make it easier to understand.  
• [NOTAM](#)

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## Airports

### Regional Guidance

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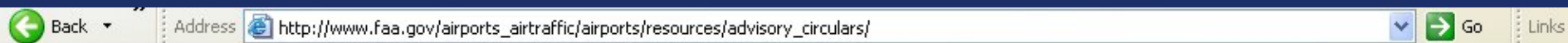
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# Advisory Circular Web Site



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## Airports Series 150 Advisory Circular Library

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### Advisory Circular Search Form

This library allows visitors to access FAA Series 150 ACs. You can search by keyword or category and sort the resulting list by AC number, title, or publication date. To resort a list once it appears, click on the appropriate column title. To access other FAA ACs, visit [FAA Advisory Circulars](#).

Keyword(s):

Category:

Sort:

Sort Direction:

Form Controls:

Last updated: 12:51 pm ET January 27, 2006



## Recent Work—Completed AC's

150/5100-14D, AAS-100, September 30, 2005

### ARCHITECTURAL, ENGINEERING, AND PLANNING CONSULTANT SERVICES FOR AIRPORT GRANT PROJECTS

Provides guidance for airport sponsors in the selection and employment of architectural, engineering, and planning consultants under Federal Aviation Administration airport grant programs.



## Recent Work—Completed AC's

150/5220-22A, AAS-100, September 30, 2005

### ENGINEERED MATERIALS ARRESTING SYSTEMS (EMAS) FOR AIRCRAFT OVERRUNS

Contains standards for the planning, design, and installation of EMAS in runway safety areas.



## Recent Work—Completed AC's

150/5345-53C, AAS-100, September 30, 2005  
AIRPORT LIGHTING EQUIPMENT CERTIFICATION  
PROGRAM

Describes the Airport Lighting Equipment Certification Program (ALECP).

See also an explanation of FAA's interim Non-Original Equipment Manufacturer (OEM) Parts Certification Program.

FAA's interim Non-Original Equipment Manufacturer (OEM) Parts Certification Program (PDF)



## Recent Work—Completed AC's

150/5345-53C ADDENDUMS (published monthly)  
AAS-100

Airport Lighting Equipment Certification Program. Addendums to Appendices 1, 3, and 4 of AC 150/5345-53C.

March, 2006



## Recent Work—Completed AC's

150/5325-4B, AAS-100, July 1, 2005

### RUNWAY LENGTH REQUIREMENTS FOR AIRPORT DESIGN

Provides design standards and guidelines for determining recommended runway lengths.





## Recent Work—Completed AC's

150/5340-1J, AAS-300, April 29, 2005  
STANDARDS FOR AIRPORT MARKINGS

Describes the standards for markings used on airport runways, taxiways, and aprons.



## Recent Work—Completed AC's

150/5370-10B, AAS-100, April 25, 2005

### STANDARDS FOR SPECIFYING CONSTRUCTION OF AIRPORTS

Provides standards for the construction of airports. Items covered include general provisions, earthwork, flexible base courses, rigid base courses, flexible surface courses, rigid pavement, fencing, drainage, turfing, and lighting installation. This replaces all advance copies.

It is available as a single file (see Complete) and as three smaller files (see Parts 1-3).



## Recent Work—Completed AC's

150/5345-42D, AAS-100, April 29, 2005

SPECIFICATION FOR AIRPORT LIGHT BASES,  
TRANSFORMER HOUSES, JUNCTION BOXES AND  
ACCESSORIES

Contains specification for containers designed to serve as airport light bases, transformer housings, junction boxes and related accessories. Please Read: Changes to AC 150/5345-42D and Change to Effective Date of AC 150/5345-42D.



## Recent Work—Completed AC's

150/5340-30A, AAS-100, April 11, 2005

### DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS

Provides guidance and recommendations on the installation of airport visual aids. This AC replaces several ACs. Installation Details for Land and Hold Short Lighting Systems. See also Airport Technical Advisory on Electromagnetic Interference (EMI).

It is available as one large file (see Complete) or as three smaller files (see Parts 1-3).



## Recent Work—Completed AC's

150/5370-11A, AAS-100, December 29, 2004

### USE OF NONDESTRUCTIVE TESTING DEVICES IN THE EVALUATION OF AIRPORT PAVEMENT

Provides guidance on the use of nondestructive testing equipment to evaluate the load-carrying capacity of airport pavements.



## Recent Work—Completed AC's

150/5320-17, AAS-100, July 12, 2004

### AIRFIELD PAVEMENT SURFACE EVALUATION AND RATING MANUALS

Provides guidance on understanding and rating the surface condition of flexible and rigid airfield pavements and provides a simple system to visually rate pavement condition.

It is available as one complete file (see Complete) or as three smaller files (see Parts 1-3).



## Recent Work—Completed AC's

- AC 150/5345-12E SPECIFICATION FOR AIRPORT AND HELIPORT BEACON, November 17, 2005
- AC 150/5200-34A CONSTRUCTION OR ESTABLISHMENT OF LANDFILLS NEAR PUBLIC AIRPORTS, January 26, 2006
- AC 150/5345-50A SPECIFICATION FOR PORTABLE RUNWAY AND TAXIWAY LIGHTS, September 19, 2005
- AC 50/5345-51A SPECIFICATION FOR DISCHARGE-TYPE FLASHING LIGHT EQUIPMENT, September 19, 2005



## Recent Work—Completed AC's

- AC 50/5345-49B SPECIFICATION L-854, RADIO CONTROL EQUIPMENT, September 15, 2005
- AC 150/5070-6B AIRPORT MASTER PLANS, Provides guidance for the preparation of airport master plans that range in size and function from small general aviation to large commercial service facilities. Appendix D of this AC cancels Chapter 1, Section 5; Appendix 6; and Appendix 7 of AC 150/5300-13, Airport Design, July 29, 2005
- AC 150/5345-47B SPECIFICATION FOR SERIES TO SERIES ISOLATION TRANSFORMERS FOR AIRPORT LIGHTING SYSTEMS, June 30, 2005





## Recent Work—Completed AC's

- AC 50/5345-10F SPECIFICATION FOR CONSTANT CURRENT REGULATORS REGULATOR MONITORS, June 24, 2005
- AC 150/5345-28F PRECISION APPROACH PATH INDICATOR (PAPI) SYSTEMS, April 12, 2005
- AC 150/5340-26A MAINTENANCE OF AIRPORT VISUAL AID FACILITIES, April 4, 2005
- AC 150/5200-32A REPORTING WILDLIFE AIRCRAFT STRIKES, December 22, 2004



# AC's in Revision Process

- AC 150/5370-10C New specification Item---Performance-based specification for pavement sealer rejuvenators.
- AC 150/5345-10E Specification for Constant Current Regulators and Regulator Monitors.
- AC 5300-13 Airport Design
- FAA Order 5190.6 Airport Compliance Program Handbook.
- AC 150/5190-4 A Model Zoning Ordinance to Limit the Height of Objects Around Airports



# AC's in Revision Process

- AC 150/5200-28 Notice to Airmen (NOTAM) for Airport Operators
- AC 150/5220-10 Guide Specification for Water/Foam Aircraft Rescue and Firefighting Vehicles
- AC 150/5220-19 Guide Specification for Small, Dual Agent Aircraft Rescue and Firefighting Vehicles
- AC 150/5345-45B Lightweight Approach Light Structures
- AC 150/5370-13 Off-peak Construction of Airport pavement Using Hot-Mix Asphalt



# AC's in Revision Process

- AC 150/5345-39B Runway and Taxiway Retroreflective Markers
- AC 150/5345-43E Specification for Obstruction Lighting Equipment
- AC 150/5345-46B Specifications for Runway and Taxiway Light Fixtures
- AC 150/5200-18 Airport Self-Inspection DVD



# Engineering Briefs (EB)

- Interim FAA guidance is provided in Engineering Briefs. EB's provide additional guidance on unusual conditions that AC's may not completely address.
- Generally issued without draft sent out for widespread review.
- Also placed on the Airports web site.





http://www.faa.gov/airports\_airtraffic/airports/construction/engineering\_briefs/



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## Engineering Briefs

Engineering Briefs (EBs) provide additional information issued by the [Airport Engineering Division](#) of the FAA.



# Recent Engineering Briefs

- Full Set (ZIP, 5.53 MB) Download the Full Set of Engineering Briefs as a Zipped File February 3, 2006
- EB 71 (PDF) Modification to Standard for Aircraft Rescue and Fire Fighting Vehicles February 1, 2006
- EB 70 (PDF) Accelerated Alkali-Silica Reactivity in Portland Cement Concrete Pavements Exposed to Runway Deicing Chemicals December 13, 2005



## Recent Engineering Briefs

- EB 69 General Guidance and Specifications for Aeronautical Survey Airport Imagery Acquisition and Submission to the National Geodetic Survey (Volume B) September 14, 2005
- DRAFT EB 68 Four Component Coal-Tar Sealer Rejuvenator (Not Suitable for Project Use at this Time). Issued For Comment: August 10, 2005
- EB 67 Change 1 Light Sources other than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures (Change includes EB 67) November 4, 2005





## Recent Engineering Briefs

- EB 66 Rubblized Portland Cement Concrete Base Course  
February 13, 2004
- EB 62 Polymer Composite Micro-Overlay for Fuel-Resistant  
Wearing Surfaces December 20, 2002
- EB 61 Engineering Brief #61 Installation Procedures for  
Adjustable Light Bases and Extensions. February 6, 2001



# Recent Engineering Briefs

- EB 60 Semi-Flexible Wearing Course for Apron Pavement  
January 16, 2001
- EB 59 Engineering Brief No. 59, Item P-401 Plant Mix Bituminous Pavements (Superpave). This Brief Provides Guidance on Using Asphaltic Mixtures Designed Using Superpave Techniques (Supercedes 3/1/00 Guidance)  
December 18, 2001
- EB 58 Lighting and Signage of Declared Distance Runways -  
Cancelled December 8, 1999



## Other Engineering Briefs

- EB 57 Extended Q-Value Table for Estimating Percent of Lot Within Limits (PWL) Q-Value and PWL Table May 19, 1999
- EB 56 Development of Revised Acceptance Criteria for Item P-401 and Item P-501. January 27, 1999
- EB 44 Coal-Tar Sealer/Rejuvenator November 2, 1989



# Thank You

## Questions / Discussion

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